UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/972,391	08/21/2013	Omer Tripp	IL920120061US2_8150-0439	1385

73109 7590 02/13/2017

Cuenot, Forsythe & Kim, LLC
20283 State Road 7
Ste. 300
Boca Raton, FL 33498

EXAMINER	
GYORFI, THOMAS A	

ART UNIT	PAPER NUMBER
2435	

NOTIFICATION DATE	DELIVERY MODE
02/13/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ibmptomail@iplawpro.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMER TRIPP

Appeal 2016-005104
Application 13/972,391[1]
Technology Center 2400

Before ERIC S. FRAHM, JOHNNY A. KUMAR, and JOYCE CRAIG, *Administrative Patent Judges*.

FRAHM, *Administrative Patent Judge*.

DECISION ON APPEAL

[1] As noted by Appellant in the Appeal Brief (App. Br. 3), this application is the child application of, and is related to, U.S. Patent Application Serial No. 13/628,392.

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–10. We have jurisdiction under 35 U.S.C. § 6(b).

Because we affirm at least one ground of rejection with respect to each claim on appeal, the Examiner's decision rejecting claims 1–10 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

Disclosed Invention and Illustrative Claim

The disclosed invention relates a system, method, and computer program product for customizing a security report (Spec. ¶¶ 1–3; Claims 1 and 10; Abs.). Website security protects against cyber-attacks, and is implemented using a form of static analysis called taint analysis which searches for paths such as paths in a control flow graph (*see* Fig. 1, control flow graph 100) representing a model of data flow of a computer program (Spec. ¶¶ 2–4). Claim 1, reproduced below with emphases added, is illustrative of the claimed subject matter:

> 1. A method of customizing a security report, the method comprising:
>
> performing, by a security analysis application executed by a processor, a static analysis of a computer program and, during the static analysis, generating, by the security analysis application, a control flow graph representing a model of data flow of the computer program and assigning respective edge weights to edges of a plurality of paths in the control flow graph;
>
> *limiting an amount of processing resources allocated to processing a uniform-cost search method by dynamically configuring, by the security analysis application, a size of the uniform-cost search method based on a size of the control flow graph*, dynamically configuring the size of the uniform-cost search method *based on the size of the control flow graph comprising identifying edges assigned greatest edge*

weights and limiting the uniform-cost search method to consider only those paths that include the edges assigned the greatest edge weights;

determining, using the uniform-cost search method executed by the processor, a total edge weight for the considered paths, the total edge weight for a considered path being a sum of the edge weights assigned to the respective edges of the considered path;

identifying at least one path of the considered paths in the control flow graph whose total edge weight satisfies a particular total edge weight criteria;

updating the control flow graph to indicate to the user the at least one path in the control flow graph whose total edge weight satisfies the particular total edge weight criteria; and presenting, on a display, the updated control flow graph to the user as a customized security report that facilitates identification of security vulnerabilities in the computer program.

REJECTIONS

The Examiner made the following rejections in the final rejection:

(1) Claims 1–10 stand provisionally rejected based on the judicially created doctrine of non-statutory obviousness-type double patenting, over claims 11–25 of U.S. Patent Application No. 13/628,392.[2] Final Rej. 4; Ans. 2.

[2] Appellant does not present separate patentability arguments for claims 1–10 provisionally rejected based on the judicially created doctrine of non-statutory obviousness-type double patenting, or otherwise rebut the Examiner's *prima facie* case in regards to the provisional obviousness-type double patenting rejection of claims 1–10 (*see generally* App. Br. 7–22; Reply Br. 2–14). Thus, no issue is presented by Appellant as to this rejection, and we sustain the provisional obviousness-type double patenting rejection of claims 1–10 *pro forma*.

(2) Claims 1–10 stand rejected under 35 U.S.C § 101 as being directed to non-statutory subject matter. Final Act. 5–6; Ans. 3–12.

(3) Claims 1–10 were also rejected under 35 U.S.C § 103(a) as being unpatentable over Chilimbi (US 2008/022614 A1; published Sept. 11, 2008) and Zhou (US 2008/0143723 A1; published Jun. 19, 2008). Final Act. 6–9. The Examiner has now withdrawn this obviousness rejection (Advisory Action mailed April 16, 2015, p. 2).

ANALYSIS

The Provisional Double Patenting Rejection

Appellant has not presented any argument or evidence regarding the Examiner's provisional obviousness-type double patenting rejection. Therefore, we affirm the provisional double patenting rejection of claims 1–10 over claims 11–25 of U.S. Patent Application 13/628,392 *pro forma*.

The Non-Statutory Subject Matter Rejection under 35 U.S.C. § 101

The Examiner finds claims 1–10 are directed to non-statutory subject matter because they are drawn to the abstract idea of organizing human activity, without an inventive concept sufficient to transform that abstract idea into a patent eligible application (Final Act. 5–6; Ans. 3–12). Appellant contends claims 1–10 are not directed to an abstract idea at all, and instead recite operations performed on a data structure and on a control flow graph (App. Br. 16–17). Appellant also contends the various recited elements of independent claims 1 and 10 transform the claimed elements into patent eligible subject matter because the claims allocate an amount of processing resources by performing a dynamic configuration – which in turn serves to improve upon a technological process, reduces energy/power usage in a system (App. Br. 17–18). We agree with Appellant.

Claims 1–10 are directed to a patent-eligible concept: limiting the allocation of processing resources used for processing a uniform-cost search method on a control flow graph used in the static analysis of a computer program performing a security analysis application. Considering the elements of independent claims 1 and 10 individually, and as an ordered combination, we find the additional elements of *dynamically configuring* the size of the uniform-cost search method based on the size of the control flow graph by "identifying edges assigned greatest edge weights and limiting the uniform-cost search method to consider only those paths that include the edges assigned the greatest edge weights; [and] determining, using the uniform-cost search method executed by the processor, a total edge weight for the considered paths" transform the nature of the claimed system and computer program product into a patent-eligible application.

Therefore, we find the Examiner erred in finding independent claims 1 and 10, and dependent claims 2–9 for similar reasons, to be directed to non-statutory subject matter.

The Obviousness Rejection under 35 U.S.C. § 103(a)

The Examiner asserted that the combination of Chilimbi and Zhou were evidence that using a uniform-cost search method on a control flow graph to perform a static security analysis of a computer program was well-known, and that the combination of Chilimbi and Zhou discloses all the limitations of claims 1–10 (Final Act. 6–9). Appellant presented arguments in an after-final amendment filed March 23, 2015 (pp. 14–15), that the combination of Chilimbi and Zhou did not disclose or suggest the limitation recited in claims 1 and 10 of "dynamically configuring the size of the uniform-cost search method based on the size of the control flow graph comprising identifying edges assigned greatest edge weights and

limiting the uniform-cost search method to consider only those paths that include the edges assigned the greatest edge weights." Not only do we agree with Appellant, but so did the Examiner. As a result of Appellant's arguments submitted in the after final amendment, the Examiner indicated in the Advisory Action that followed (mailed May 16, 2015; *see* p. 2) that "[t]he arguments traversing the rejection[] under 35 USC 103 have been fully considered and are persuasive. Th[is] rejection[] ha[s] been withdrawn."

Accordingly, the Examiner has neither shown that (i) the limitations of claims 1–10 would have been obvious based on the knowledge of one of ordinary skill in the art; nor (ii) Chilimbi teaches or suggests the uniform method-cost search method recited in independent claims 1 and 10. As a result, this bolsters our determination *supra*, that claims 1–10 are directed to the patent-eligible concept of limiting the allocation of processing resources used for processing a uniform-cost search method on a control flow graph used in the static analysis of a computer program performing a security analysis application.

CONCLUSIONS

Appellant has not presented any arguments regarding the provisional obviousness-type double patenting rejection, so there is no issue presented on appeal with respect to this rejection.

Under 35 U.S.C. § 101, the Examiner erred in rejecting claims 1–10 as being directed to non-statutory subject matter.

The Examiner's rejection of claims 1–10 under 35 U.S.C. § 103(a) was withdrawn.

DECISION

For the above reasons, the Examiner's decision (i) provisionally rejecting claims 1–10 based on the judicially created doctrine of non-statutory obviousness-type double patenting is affirmed *pro forma*; and (ii) rejecting claims 1–10 under 35 U.S.C. § 101 is reversed. Because we affirm at least one ground of rejection with respect to each claim on appeal, the Examiner's decision rejecting claims 1–10 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED